

FOREST ROAD EXCISE TAX SUMMARY SHEET

Region: SPS

Timber Sale Name: Viva Blowdown

Application Number: 30-076489

Excise Tax Applicable Activities

Construction: 0 linear feet  
Road to be constructed (optional and required) but not abandoned

Reconstruction: 0 linear feet  
Road to be reconstructed (optional and required) but not abandoned

Abandonment: 0 linear feet  
Abandonment of existing roads not reconstructed under the contract

Deactivation: 0 linear feet  
Road to be made undriveable but not officially abandoned.

Pre-Haul Maintenance: 0 linear feet  
Existing road to receive maintenance work (specifically required by the contract) prior to haul

Excise Tax Exempt Activities

Temporary Optional Construction: 2,116 linear feet  
Optional roads to be constructed and then abandoned

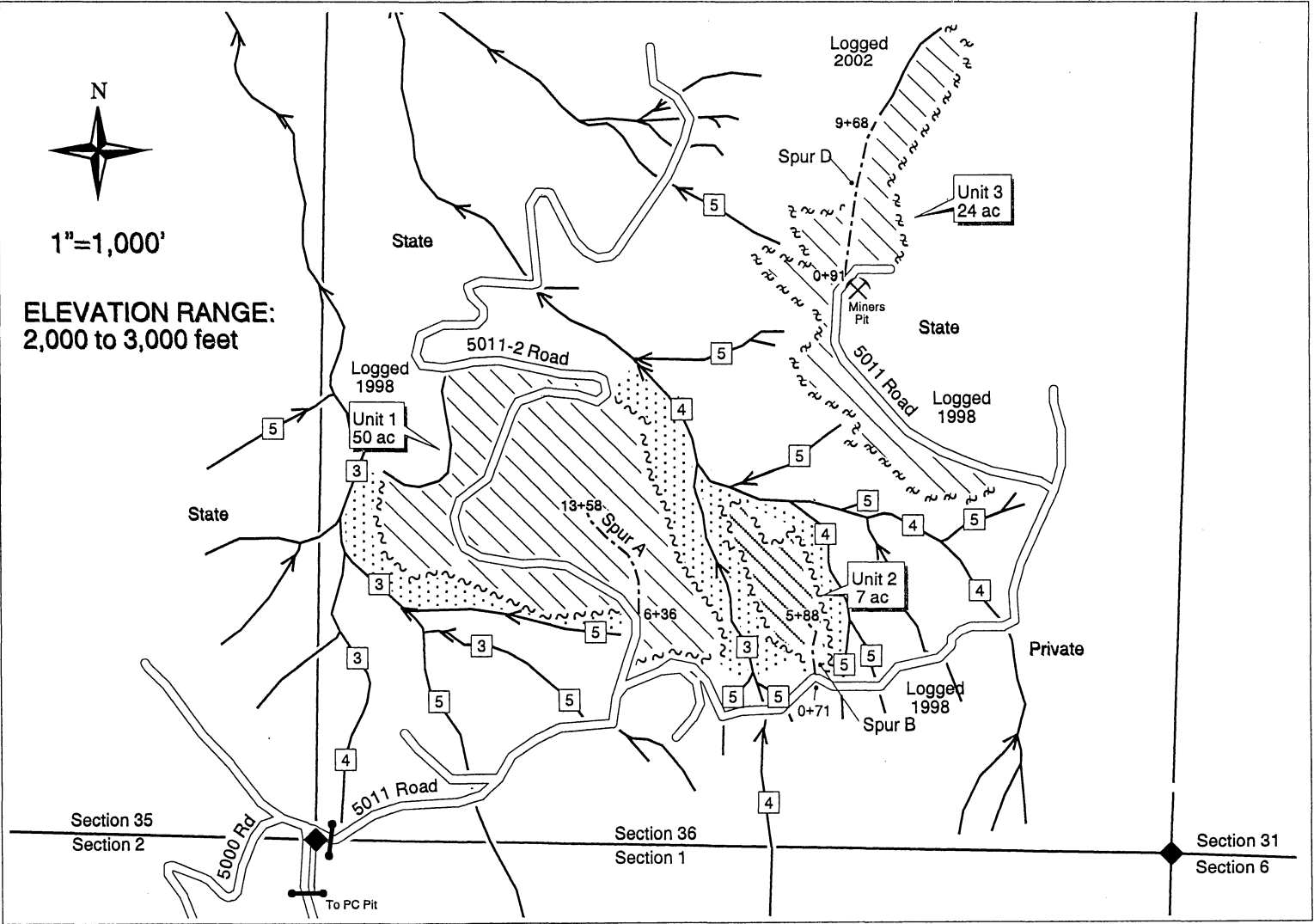
Temporary Optional Reconstruction: 0 linear feet  
Optional roads to be reconstructed and then abandoned

New Abandonment: 0 linear feet  
Abandonment of roads constructed or reconstructed under the contract

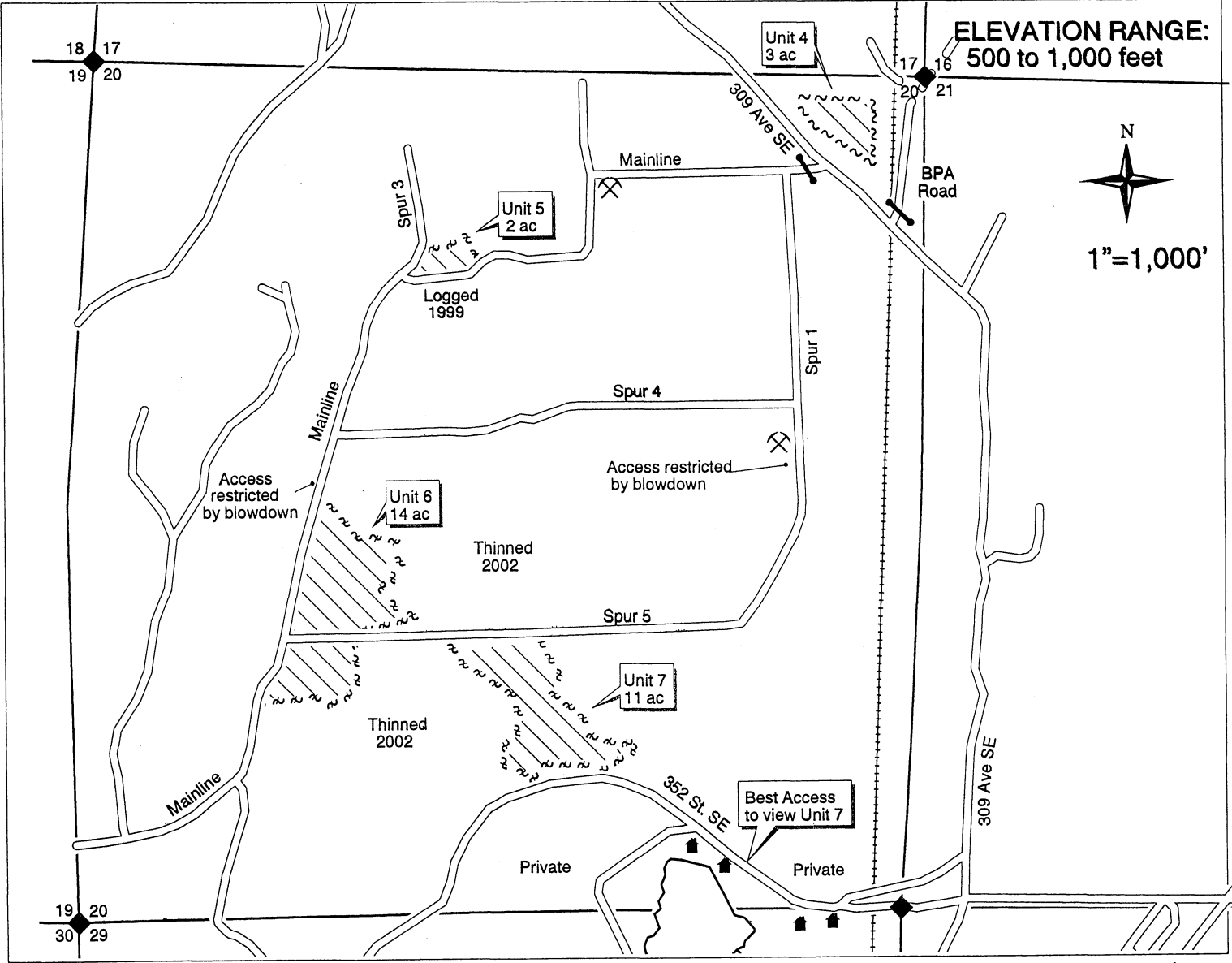
TIMBER SALE MAP

SALE NAME: VIVA BLOWDOWN REGION: SOUTH PUGET SOUND  
AGREEMENT NO: 30-076489 COUNTY(S): KING  
TRUST(S): FOREST BOARD TRANSFER, FOREST BOARD TRANSFER (WTD), COMMON SCHOOL

ROAD PLAN PROJECT MAP MAP 1 OF 2  
TOWNSHIP 22 NORTH, RANGE 7 EAST, W.M.



TOWNSHIP 21 NORTH, RANGE 7 EAST, W.M.



TIMBER SALE MAP

SALE NAME: VIVA BLOWDOWN

AGREEMENT NO: 30-076489

TRUST(S): FOREST BOARD TRANSFER, FOREST BOARD TRANSFER (WTD), COMMON SCHOOL

REGION: SOUTH PUGET SOUND

COUNTY(S): KING


ROAD PLAN PROJECT MAP  
MAP 2 OF 2


LEGEND FOR MAP 1


- ~~~~~


White Timber Sale Boundary Tags
- ~~~~~


White Special Management Unit Boundary Tags
- =====


Existing Road
- Optional Reconstruction
- 


Sale Area
- 


RMZ
- 


Survey Corner
- 

Houses
- 

Rock Pit
- 

Water Type
- 

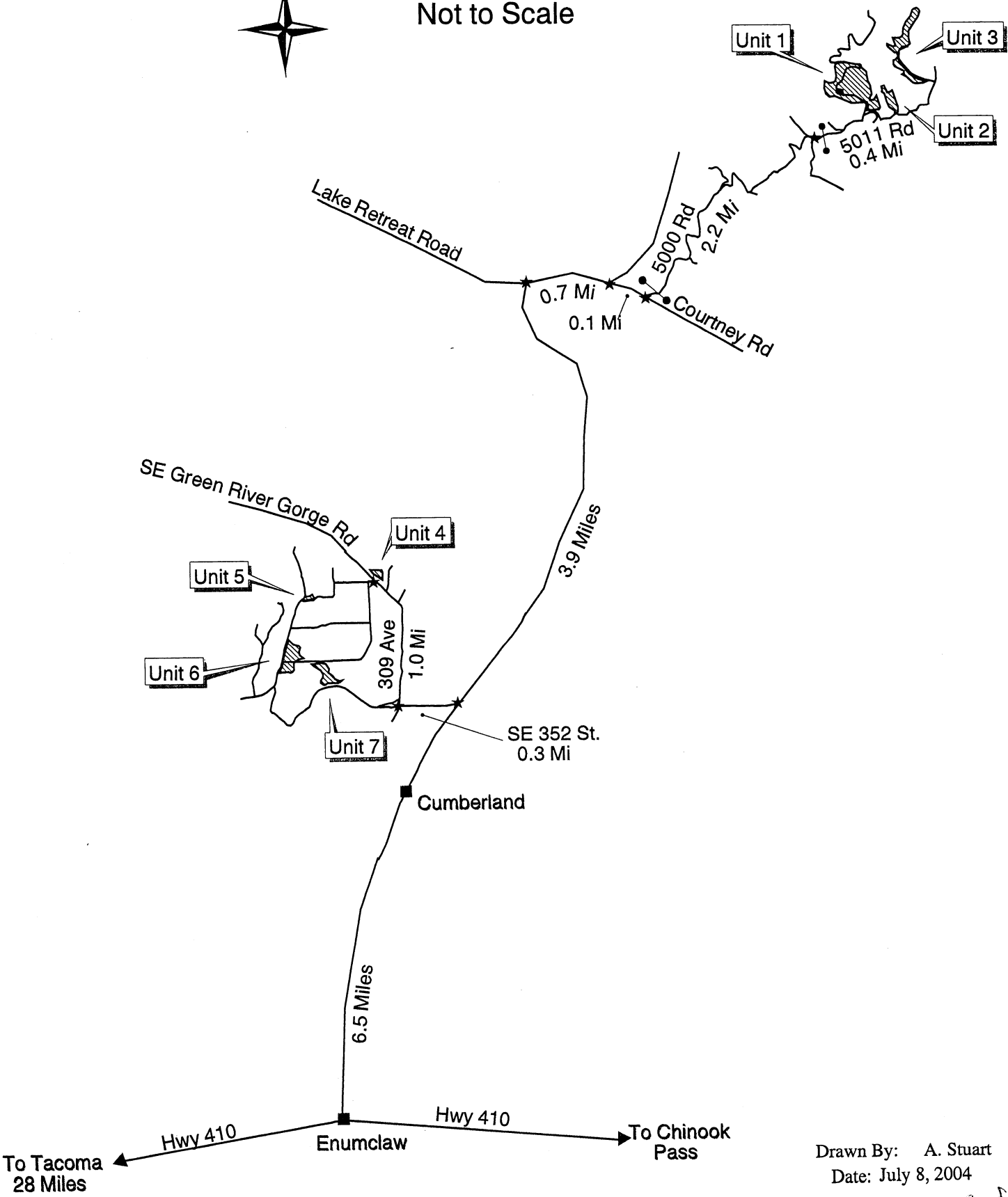
Streams
- 

Locked Gate: Master 786
- 

Overhead Powerlines



VICINITY MAP  
Not to Scale



-STATE OF WASHINGTON  
DEPARTMENT OF NATURAL RESOURCES  
SOUTH PUGET SOUND REGION

VIVA BLOWDOWN

ROAD PLAN

SECTION 36, TOWNSHIP 22 NORTH, RANGE 7 EAST, W.M.  
SECTION 20, TOWNSHIP 21 NORTH, RANGE 7 EAST. W. M.  
KING COUNTY

RAINIER DISTRICT

AGREEMENT NO.: 30-076489

STAFF ENGINEER: M.Bell

DATE: 5/25/04

DRAWN & COMPILED BY: M. Bell

SECTION 0 - SCOPE OF PROJECT

This project includes but is not limited to optional reconstruction including:

- clearing existing excavation and embankment slopes;
- right-of-way debris disposal;
- landing construction;
- cleaning ditches;
- acquisition and installation of additional drainage structures;
- acquisition, manufacture, and application of rock including existing turnouts;
- road abandonment.

SECTION 1 - GENERAL CLAUSES

1.1-1 ROAD PLAN SCOPE

Clauses in this plan apply to all reconstruction including landings unless otherwise noted.

1.1-3 OPTIONAL ROADS

Reconstruction of the following roads is not required. Roads used by the Purchaser shall be reconstructed on the State's location and in accordance with this Road Plan.

<u>Road</u>	<u>Stations</u>	<u>Type</u>
Spur A	6+36 to 13+58	Construction
Spur B	0+71 to 5+88	Construction
Spur D	0+91 to 9+68	Construction

1.1-4 ROAD PLAN CHANGES

Any departure from this Road Plan including relocation, extension, change in design or additional roads shall be submitted in writing, to the Contract Administrator for consideration, submitted plans must be approved before construction begins.

1.1-5 HIDDEN CONDITIONS

On this plan quantities are minimum acceptable values. Additional quantities required by the State because of hidden conditions or Purchaser's choice of construction season or techniques shall be at the Purchaser's expense. Hidden conditions include, but are not limited to: solid subsurface rock, subsurface springs, saturated ground, and unstable soil.

1.2-1 CONSTRUCTION PERIOD

The reconstruction or rock haul on any of the roads specified herein shall not be permitted when in the opinion of the Contract Administrator, excessive damage may occur.

1.2-2 HAUL APPROVAL

Purchaser shall not use roads reconstructed under this Road Plan for hauling, other than timber cut on the right-of-way, without written approval from the Contract Administrator.

### **1.2-3 EXCAVATOR CONSTRUCTION**

Roads shall be reconstructed using track mounted hydraulic excavators unless otherwise authorized, in writing, by the Contract Administrator.

#### **1.2.1-1 CONSTRUCTION STEPS**

Pioneering shall not extend past construction that will be completed during the current construction season. Drainage shall be provided on all uncompleted construction as approved, in writing, by the Contract Administrator. Road pioneering operations shall not undercut the final cut slope, deposit excavated material outside the right of way limits, or restrict drainage.

Clearing and grubbing shall be completed prior to starting excavation and embankment.

Culverts shall be installed in completed subgrade as construction progresses.

Subgrade, ditches, and culvert installations shall be completed and are subject to written approval by the Contract Administrator prior to rock application, and/or timber haul.

### **1.3-1A CLOSURE TO PREVENT ROAD DAMAGE**

At any time of the year, the hauling of forest products shall not be permitted when in the opinion of the Contract Administrator excessive road damage may occur.

### **1.4-3 R P DAMAGE**

Reference points (R.P.'s) that are moved or damaged at any time during construction shall be reset in their original locations by the Purchaser. Excavation and embankment shall not proceed on road segments controlled by said R.P.'s until all moved or damaged R.P.'s are reset.

### **1.5-1 ROAD MAINTENANCE RESPONSIBILITY**

Maintenance on roads listed in Contract Clauses C-50 (Purchaser Road Maintenance and Repair) and C-60 (Designated Road Maintainer) shall be performed in accordance with Forest Access Road Maintenance Specifications.

### **1.5-3 SNOWPLOWING**

Snowplowing shall not be permitted unless authorized, in writing, by the Contract Administrator.

## **SECTION 4 - DEBRIS DISPOSAL AND REMOVAL**

### **4.1-1 DEBRIS DEFINITION**

Right-of-way debris is defined as all non-merchantable vegetative material larger than one cubic foot in volume within the grubbing limits.

### **4.1-2 DISPOSAL COMPLETION**

All right-of-way debris disposal shall be completed prior to the application of rock and/or timber haul.

### **4.2.3-3 DEBRIS PLACEMENT**

Right-of-way debris shall not be placed against standing timber.

## **SECTION 5 - EXCAVATION**

### **5.1-1 DEFAULT ROAD DIMENSIONS**

Unless controlled by specific design sheets herein, roads shall be reconstructed in accordance with dimensions shown on the TYPICAL SECTION SHEET.

### **5.1-3 ROAD GRADE AND ALIGNMENT**

Road grade and alignment shall conform to the State's marked location. Grade and alignment shall have smooth continuity without abrupt changes in direction. Maximum grades are: 18 percent favorable and 12 percent adverse or as specified on drawings. Minimum radius curve is 60 feet.

5.1-7 CONSTRUCTION TOLERANCES

Roads shall be reconstructed to the dimensions shown on the TYPICAL SECTION SHEET, within the tolerance listed below. Tolerance classes for each road are listed on the TYPICAL SECTION SHEET.

<u>Tolerance Class</u>	<u>A</u>	<u>B</u>	<u>C</u>
Road Width (feet)	+1.5	+1.5	+2.0
Subgrade elevation (feet +/-)	0.5	1.0	2.0
Centerline alignment (feet lt./rt.)	1.0	1.5	3.0

5.1-8 CUT SLOPE RATIO

Excavation (cut) slopes shall be constructed no steeper than shown on the following table except as designed:

<u>Material Type</u>	<u>Excavation Slope Ratio</u>	<u>Percent</u>
Common Earth (on side slopes less than 55%).....	1:1	100
Common Earth (55% to 70% sideslopes) .....	¾:1	133
Common Earth (on slopes over 70%).....	½:1	200
Fractured or loose rock .....	½:1	200
Hardpan or solid rock.....	¼:1	400

5.1-9 SHAPING CUT SLOPE

Excavation and embankment slopes shall be constructed to a uniform line and left rough for easier revegetation.

5.1-10 FILL WIDENING

Except as designed, embankments shall be widened as follows:

<u>Height at Shoulder</u>	<u>Subgrade Widening</u>
Less than 6 feet	2 feet
6 feet or over	4 feet

5.1-11 FILL SLOPE RATIO

Embankment (fill) slopes shall be constructed no steeper than shown on the following table:

<u>Material Type</u>	<u>Embankment Slope Ratio</u>	<u>Percent</u>
Common Earth and Rounded Gravel .....	1½:1	67
Angular Rock .....	1¼:1	80
Sandy Soils. ....	2:1	50

5.1-12 DISPOSAL OF ORGANIC DEBRIS

Organic material shall be excluded from embankment.

5.1-22 PROHIBITED DISPOSAL AREAS

Waste material shall not be deposited within 100 feet of a culvert installation, live stream, Riparian Management Zone, wetland or Wetland Management Zone.

5.1-23 TURNOUTS

Location shall be subject to written approval of the Contract Administrator.

5.3-1 FILL COMPACTION

All embankment and waste material shall be compacted. The minimum acceptable compaction is achieved by placing embankments in 2 foot or shallower lifts and routing excavation equipment over entire width of the lifts. Side hill embankments too narrow to accommodate excavation equipment may be placed by end-dumping or side casting until sufficiently wide to support the equipment.

5.5-5 SUBGRADE CROWN

Finished subgrade shall be crowned as shown on the TYPICAL SECTION SHEET, and shall be uniform, firm, rut-free, and shaped to ensure surface runoff in an even, unconcentrated manner.

## SECTION 6 – DRAINAGE

### 6.2.1-1 CULVERT MATERIAL SPECIFICATION

For permanent culverts, Purchaser shall furnish, install, and maintain corrugated polyethylene pipe (AASHTO specification No. M-294-S) as designated on the CULVERT LIST. Culvert and flume lengths shall be varied to fit as-built conditions subject to written approval by the Contract Administrator.

### 6.2.1-2 CULVERT BANDS

Manufacturer's approved connectors shall be used for corrugated polyethylene pipe.

### 6.2.2.1-1 CULVERT SPECIFICATIONS

Culvert, downspout, flume, and energy dissipator installation shall be in accordance with CULVERT AND DRAINAGE SPECIFICATION DETAIL and the National Corrugated Metal Pipe Association "Installation Manual for Corrugated Steel Drainage Structures".

### 6.2.1-1A TEMPORARY CULVERTS

Purchaser shall furnish, install and maintain temporary culverts of the length and diameter specified on the CULVERT LIST. Culverts may be new or used steel, plastic, concrete, or such other material as approved by the Contract Administrator. All said culverts shall be removed from the road bed and State Land as indicated in clause 10.1-1.

### 6.2.2.1-1 CULVERT SPECIFICATIONS

Culvert, downspout, flume, and energy dissipator installation shall be in accordance with CULVERT AND DRAINAGE SPECIFICATION DETAIL and the National Corrugated Metal Pipe Association "Installation Manual for Corrugated Steel Drainage Structures".

### 6.2.2.3-1 CROSS DRAIN SKEW

Cross drains and surface culverts on road grades in excess of 3% shall be skewed at least 30 degrees from perpendicular to the road centerline, except cross drain culverts at the low points of dips in roads shall not be skewed.

### 6.2.2.3-2 CULVERT SLOPE

Cross drain culverts shall be installed at a slope steeper than the incoming ditch grade, but not less than 3% nor more than 10%.

### 6.2.2.5-1 ENERGY DISSIPATORS

Drainage structure outfalls shall not terminate directly on unprotected soil that will erode. Downspouts, flumes, and energy dissipators shall be installed to prevent erosion.

### 6.3-1 DITCH CONSTRUCTION

Ditches shall be constructed concurrently with construction of the subgrade. Ditches shall drain to culverts, ditchouts, and natural drainages.

### 6.3-2 DITCH, HEADWALL, AND CATCHBASIN CONSTRUCTION

Reshaping the ditchline, culvert headwalls, and catch basins shall be completed prior to application of rock and/or timber haul and shall be done in accordance with the TYPICAL SECTION SHEET and CULVERT AND DRAINAGE SPECIFICATION DETAIL.

### 6.4-1 CATCH BASINS

Catch basins shall be constructed to resist erosion in accordance with CULVERT AND DRAINAGE SPECIFICATION DETAIL. Minimum dimensions: two feet wide and four feet long with backslopes consistent with Clause 5.1-8: Excavation Slopes.

### 6.5-1 HEADWALLS

Headwalls shall be constructed in accordance with CULVERT AND DRAINAGE SPECIFICATION DETAIL at all cross drain culverts.

SECTION 7 - ROCK

7.1-1 ROCK SOURCES

Rock for reconstruction under this contract may be obtained from a source on State land as listed below at no charge to the Purchaser. Development and use shall be in accordance with a written "Pit Development Plan" prepared by the State. Upon completion of operations, the rock source shall be left in the condition specified in said plan, subject to approval by the Contract Administrator. Use of material from any other source must have prior written approval from the Contract Administrator. If other operators are using or desire to use this rock source, a joint operating plan shall be developed. All parties shall follow this plan.

<u>Source</u>	<u>Location</u>	<u>Type</u>
PC Pit	NW ¼ NE ¼ Section 1 Township 21 North, Range 7 East	4 Inch In-Place
Miner's Pit	SW ¼ NE ¼ Section 36 Township 22 North, Range 7 East	4 Inch In-Place

7.1-3 PIT OPERATIONS

All rock source operations shall be conducted as directed by the Contract Administrator and in accordance with an approved development plan.

7.2.1.1-8 4 INCH IN PLACE

"4 INCH IN PLACE" rock shall have a minimum of 90 percent of the top 4 inches of the running surface pass a 4 inch square opening. In place processing such as grid rolling, jaw crushing, or such other method as is demonstrated by the Purchaser to be effective, shall be required if necessary to achieve this requirement.

7.2.1.2-2 DEBRIS IN ROCK

Manufactured or pit run rock shall contain no more than 5 percent by weight of vegetative debris, dirt, or trash.

7.4.2-2 SUBGRADE APPROVAL FOR ROCK

Subgrade shall be approved, in writing, by the Contract Administrator prior to application of rock.

7.4.2-8 ROCK SHAPING

Each lift of rock shall be crowned as shown on TYPICAL SECTION SHEET, and shall be uniform, firm, rut-free, and shaped to ensure surface runoff in an even, unconcentrated manner.

7.4.3-3 COMPACTION TIMING

Rock shall be spread and compacted <using loaded haul trucks> concurrently with rock hauling operations.

SECTION 8 - STRUCTURES

8.4-8 GATE CLOSURE

Gates shall be closed and locked when no operation is in progress.

SECTION 9 - ROAD AND LANDING DEACTIVATION

9.2-1 LANDING DEBRIS

Purchaser shall reduce or relocate debris generated by road and landing construction, in a manner approved, in writing, by the Contract Administrator, to avoid landing failures and potential debris slides.

9.2-2 LANDING DRAINAGE

Purchaser shall provide for drainage of the landing surface as approved by the Contract Administrator.



SECTION 10 - ROAD AND LANDING ABANDONMENT

10.1-1 ABANDONMENT

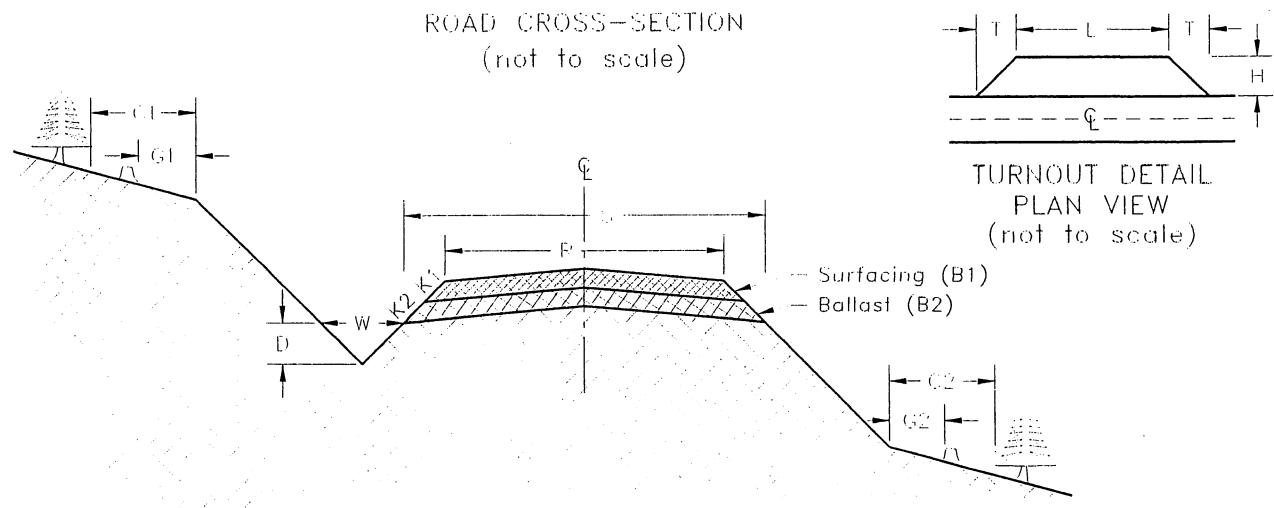
If reconstructed, the following roads shall be abandoned by the Purchaser at the termination of use.

<u>Road</u>	<u>Stations</u>
Spur A	6+36 to 13+58
Spur B	0+71 to 6+00
Spur D	0+91 to 9+80

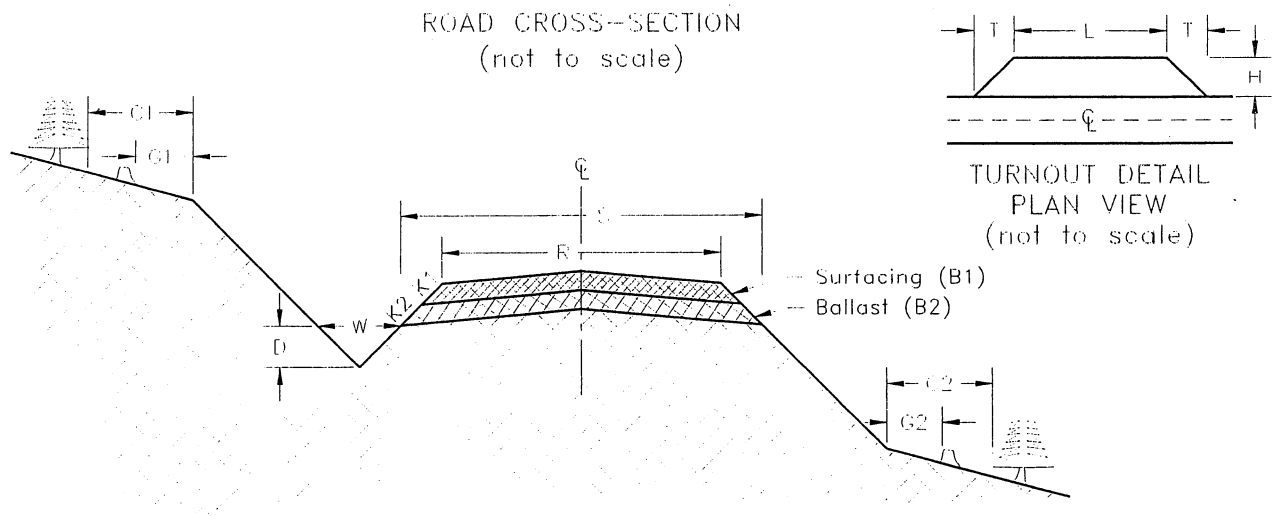
10.1-1A Abandonment shall consist of:

- Constructing non-drivable water bars in conformance with the attached NON-DRIVABLE WATER BAR DETAIL at a maximum spacing which will produce a vertical drop of no more than 10 feet between water bars or between natural drainage paths and with a maximum spacing of 100 feet; or as marked in the field; skewing water bars at least 30 degrees from perpendicular to the road centerline on roads in excess of 3% grade;
- keying water bars into ditchline;
- Removing ditch cross drain culverts and leaving the resulting trench open;
- Removing culverts from State Land;
- Sloping all trench walls and approach embankments no steeper than 1.5:1;
- Scattering right of way debris over the road prism;
- Covering, concurrently with abandonment, all exposed soils within 100 feet of any live stream, with a 4-inch deep layer of straw;
- All abandonment work should be completed as directed by Contract Administrator.

TYPICAL SECTION SHEET



Road Number	From Station	To Station	Tolerance Class	Subgrade Width (feet)	Road Width (feet)	Ditch		Crown in. @ CL	Grubbing Limits (feet)		Clearing Limits (feet)		Cut Slope Ratio	Fill Slope Ratio
						Width (feet)	Depth (feet)		G1	G2	C1	C2		
				S	R	W	D						%	%
Spur A	6+36	13+58	C	13'	10'	2'	1'	4"	2'	2'	5'	5'	100	67
Spur B	0+71	6+00	C	13'	10'	2'	1'	4"	2'	2'	5'	5'	100	67
Spur D	0+91	9+80	C	13'	10'	2'	1'	4"	2'	2'	5'	5'	100	67



ROCK LIST

BALLAST

Road Number	From Station	To Station	Rock Slope	Compacted Rock Depth	C.Y./ Station	# of Stations	C.Y. Subtotal	Rock Source	Turnout		
									Length	Width	Taper
			K2	B2	4 Inch In Place				L	H	T
* Spur A	6+36	13+58	1.5:1	12"	43	7.2	310	Miner's Pit			
* Spur B	0+71	6+00	1.5:1	12"	43	5.3	228	Miner's Pit			
* Spur D	0+91	9+80	1.5:1	12"	43	8.9	383	Miner's Pit			

BALLAST TOTAL 1063 Cubic Yards

\*Optional Rock: If Purchaser elects to haul on optional rock roads in wet weather, the depth listed above is recommended but not required.

NOTE: Yardages are estimated on a compacted (In-Place) basis. Compliance of required rock will be based on compacted depth measurement.

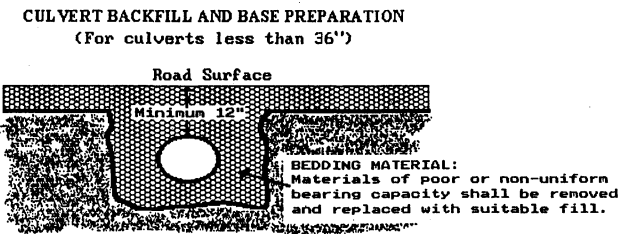
CULVERT LIST

Road Number	Location	Culvert		Length (ft)			Riprap (C.Y.)			Backfill Material	Placement Method	Const. Staked	Remarks
		Dia.	Type	Culvert	Downspt	Flume	Inlet	Outlet	Type				
Spur A	6+36	18"	PD	32'									Install across 5011-2 at Intersection With spur A
Spur B	4+48	18"	Temp	32'									Low Spot
Spur D	4+56	18"	Temp	32'									Low Spot

PD = Polyethylene Pipe Dual Wall AASHTO No. M294 Type S  
GS16 = Galvanized Steel AASHTO No. M36, 16 Gauge  
AS12 = Aluminized Steel AASHTO No. M274, 12 Gauge  
TEMP = Temporary Culvert

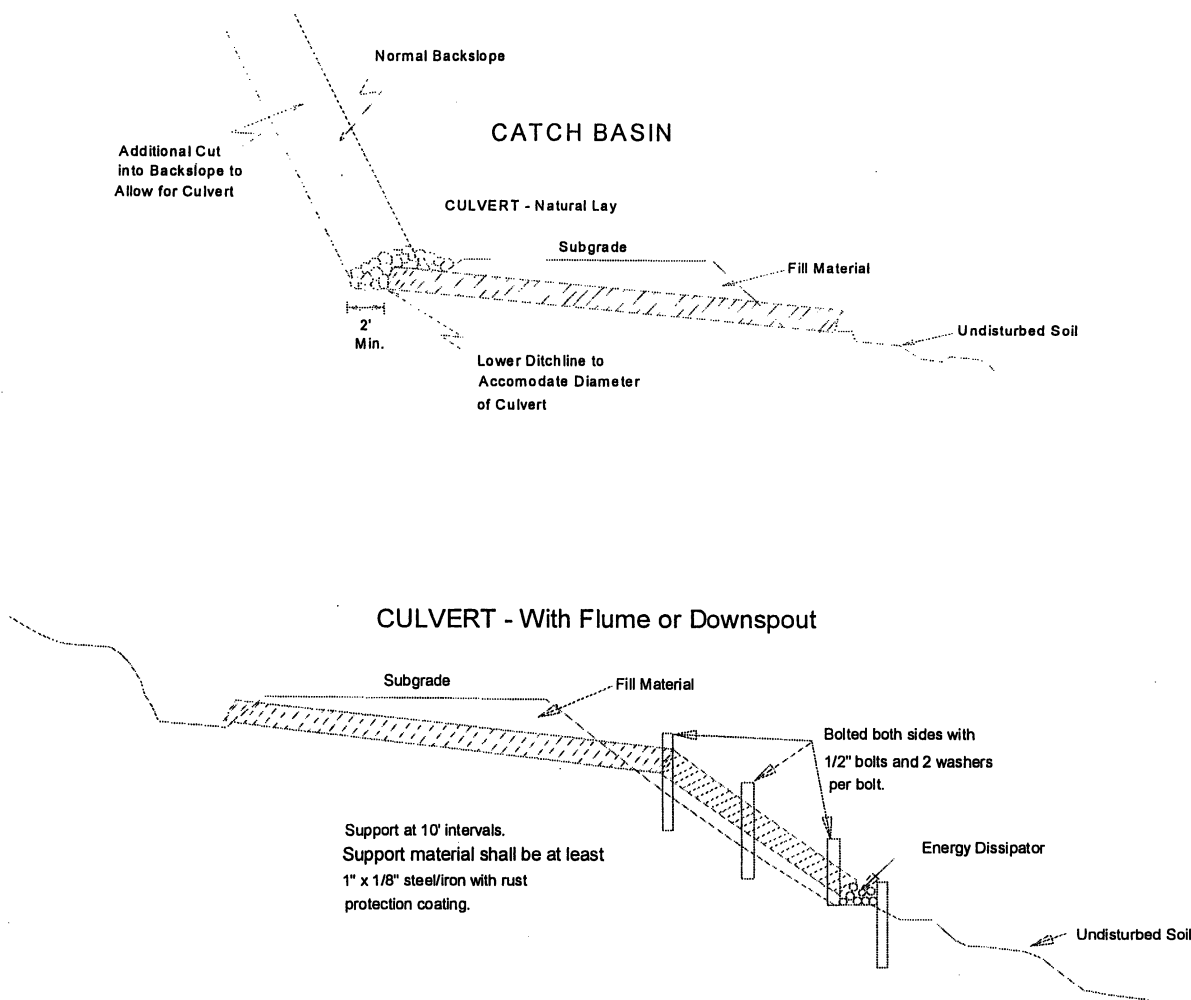
Key:

- QS - Quarry Spalls
- SR - Shot Rock
- NT - Native (bank run)
- SL - Select Fill
- HL - Heavy Loose Riprap
- LL - Light Loose Riprap
- Flume - Half round pipe
- Downspout - Full round pipe

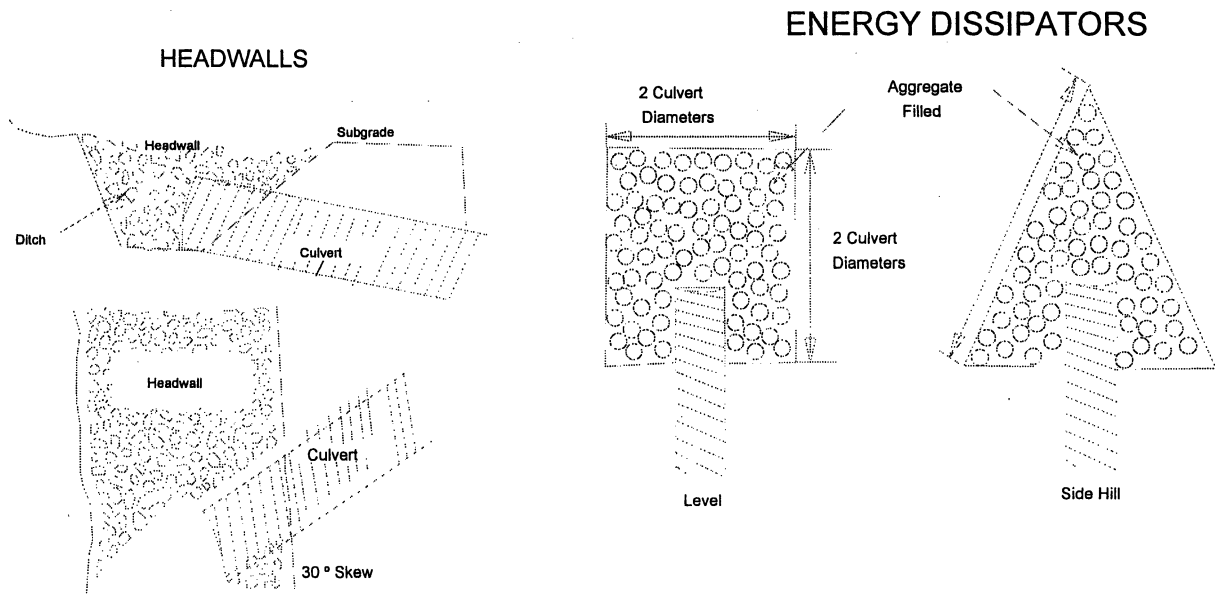


CULVERT AND DRAINAGE SPECIFICATION DETAIL

(Page 1 of 2)



Proper preparation of foundation and placement of bedding material shall precede the installation of all culvert pipe. This includes necessary leveling of the native trench bottom and compaction of required bedding material to form a uniform dense unyielding base. The backfill material shall be placed so that the pipe is uniformly supported along the barrel.



Headwalls to be constructed of material that will resist erosion.

Dissipator Specifications:  
Depth: 1 culvert diameter  
Aggregate: as specified in the CULVERT LIST.

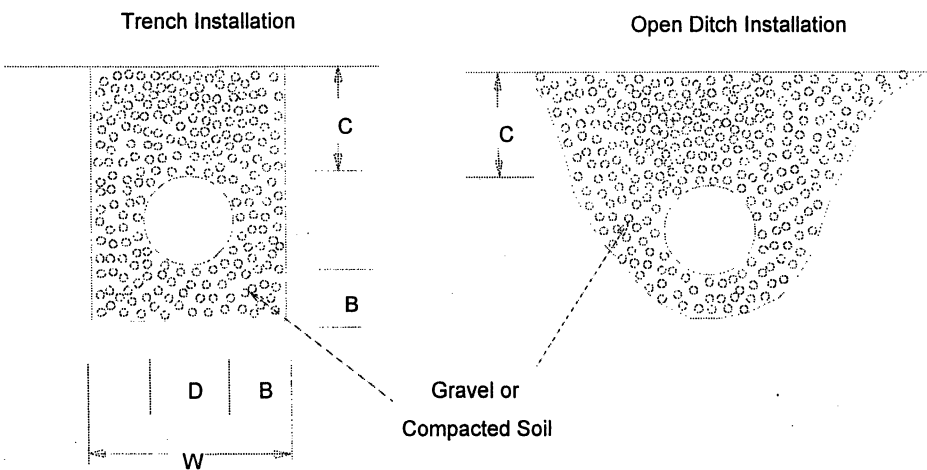
CULVERT AND DRAINAGE SPECIFICATION DETAIL

(Page 2 of 2)

POLYETHYLENE PIPE INSTALLATION

INSTALLATION REQUIREMENTS:

- 1. Crushed stone, gravel, or compacted soil backfill material shall be used as the bedding and envelope material around the culvert. The aggregate size shall not exceed 1/6 pipe diameter or 4" diameter, whichever is smaller.
- 2. The corrugated pipe shall be laid on grade, on a layer of bedding material as shown for the two types of installations. If native soil is used as the bedding and backfill material, it shall be well compacted in six inch layers under the haunches, around the sides and above the pipe to the recommended minimum height of cover.
- 3. Either crushed aggregate or flexible (asphalt) pavement may be laid as part of the minimum cover requirements.
- 4. Site conditions and availability of bedding materials often dictate the type of installation method used.
- 5. The load bearing capability of flexible conduits is dependent on the type of backfill material used and the degree of compaction achieved. Crushed stone and gravel backfill materials typically reach a compaction level of 90-95% AASHTO standard density without compaction. When native soils are used as backfill material, a compaction level of 85% is required. This minimum compaction can be achieved by either hand or mechanical tamping.



MINIMUM DIMENSIONS  
Trench or Open Ditch Installation

Nominal Diameter	Minimum Thickness	Minimum Cover	Min. Trench Width
D	B	C	W
18"	6"	12"	36"
24"	6"	12"	42"
30"	6"	12"	48"
36"	6"	12"	54"

STATE OF WASHINGTON  
DEPARTMENT OF NATURAL RESOURCES

FOREST ACCESS ROAD  
MAINTENANCE SPECIFICATIONS

1. CONSTRUCTION AND RECONSTRUCTION (Prior to acceptance to the contract or acceptance on a timber sale).

A. Cuts and Fills

1. Maintain slope lines as constructed. Remove slides from the ditches and roadway. Replace fills to 1 ½ : 1 slopes with selected material or as directed. Remove overhanging material from the cut slopes.
2. Material from slides or other sources requiring removal shall not be deposited in streams or at locations where it will erode into streams or water courses.
3. Undesirable slide materials and debris shall not be mixed into the surface material.

B. Surface

1. Grade and shape the road surface, turnouts, and shoulders to the original crown, inslope or outslope as directed to provide suitable traveled surface and surface water runoff in an even, unconcentrated manner.
2. Blading must not undercut the backslope at the bottom of the ditchline or cut geotextile at centerline.
3. Watering may be required to control dust and to retain fine surface rock.
4. Desirable surface material shall not be bladed off the roadway.
5. Replace surface material lost or worn away.
6. Remove berms except as directed by the State.
7. Barrel spread soft spots to prevent degradation of geotextile.

C. Drainage

1. Keep ditches and drainage channels at outlets and inlets of culverts clear of obstructions and functioning as intended.
2. Inspect and clean culverts at least monthly, with additional inspections during storms and periods of high runoff. This must be done even during periods of inactivity.
3. Add stable material at the outlet end of the culvert as needed to stabilize the stream bed.
4. Headwalls: maintain to the road shoulder level with material that will resist erosion.
5. Keep silt bearing surface runoff from getting into live streams.

D. Structures

Repair bridges, culverts, cattleguards, fences, and other road structures to the condition required by the construction specifications.

E. Termination of Use or End of Season

Do maintenance work to minimize damage from the elements such as blading to insure correct runoff, ditch, and culvert cleaning and water bars.

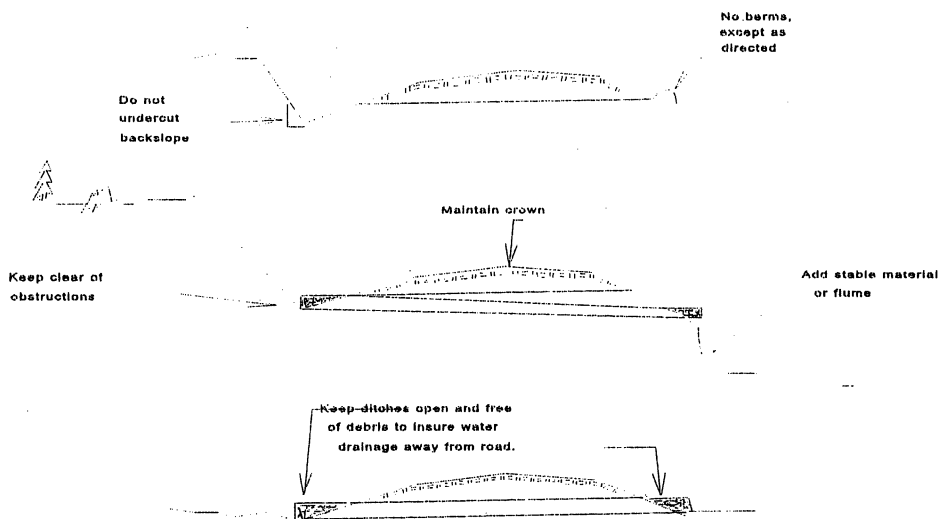
F. Debris

Remove fallen timber, limbs, and stumps from the slopes or roadway.

2. Existing Roads – Timber Sale, Operator Maintained

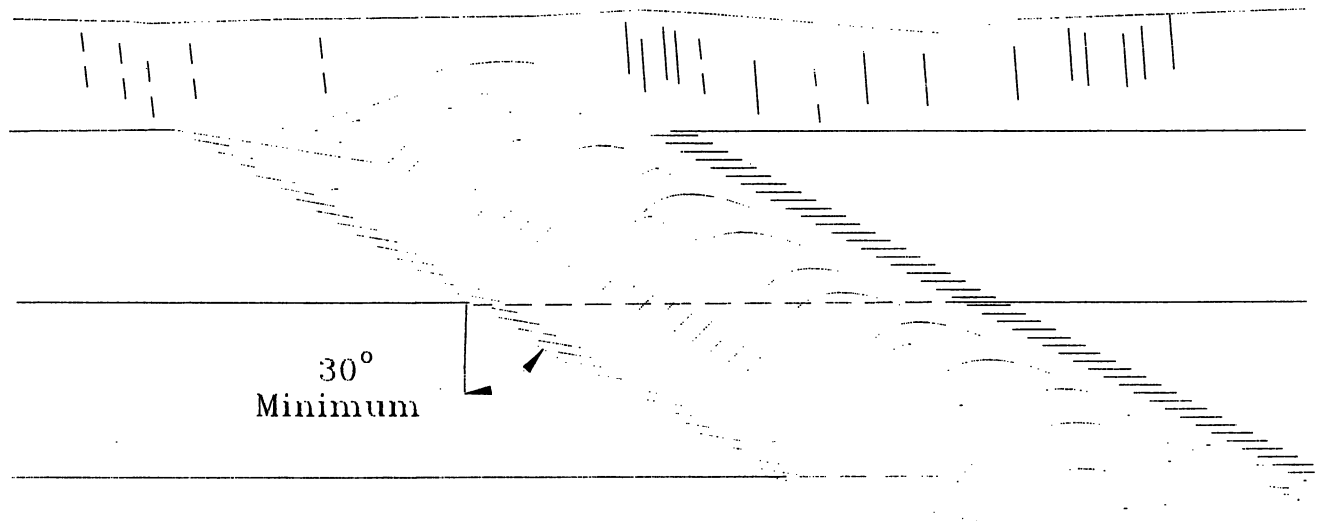
A. Same as above but not to exceed the condition of the road on the date the contract was signed.

3. A.R.R.F. – Directed maintenance to comply with these specifications.

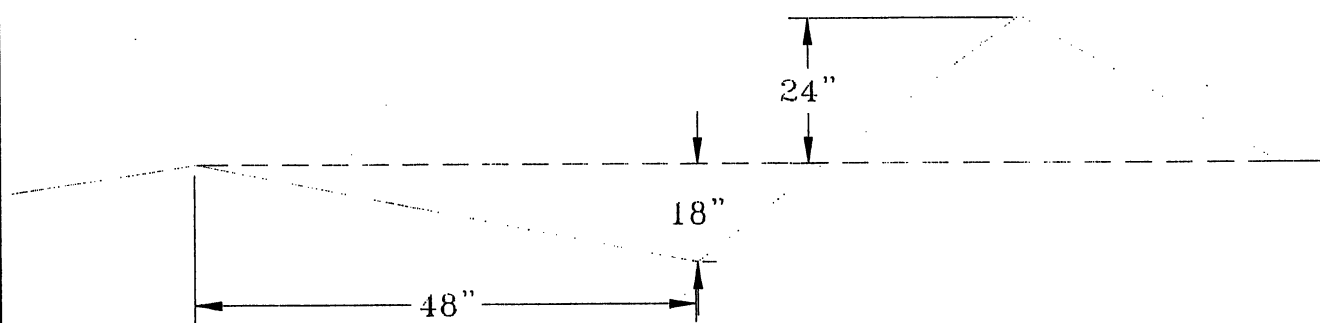


# Non-Drivable Water Bar Detail


## Cross Ditch



## Cross Section at Centerline



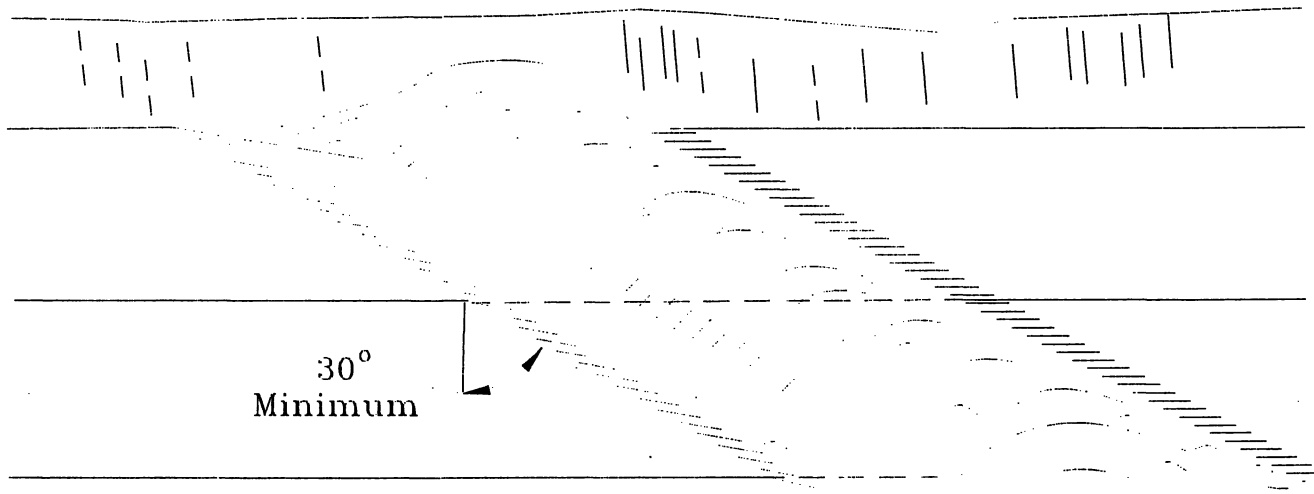
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Scale : None  
App#  
Drawn by: M.A.D.

Water Bar Detail	
	WASHINGTON STATE DEPARTMENT OF
	Natural Resources
SPS Region	

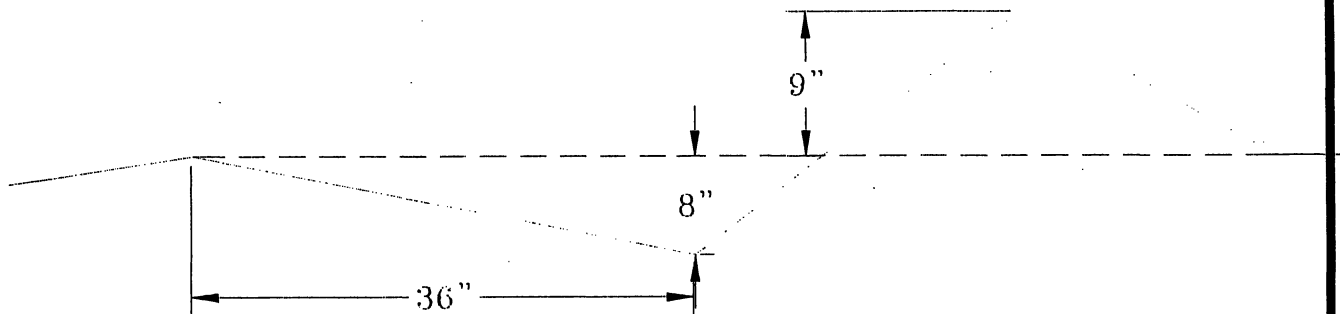


# Drivable Water Bar Detail


## Cross Ditch



## Cross Section at Centerline



Date:  
Scale : None  
App#  
Drawn by: M.A.D.

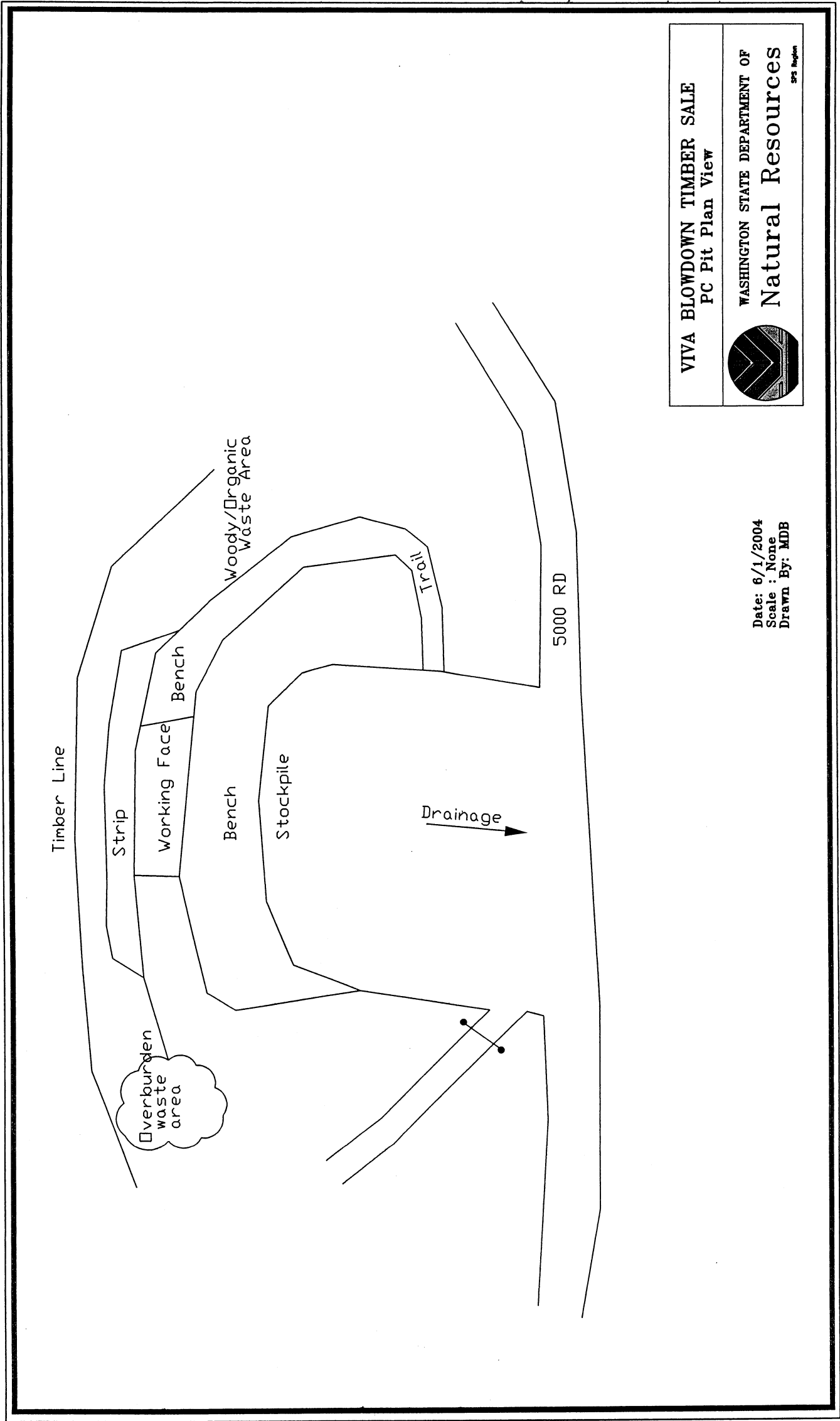
Water Bar Detail	
	WASHINGTON STATE DEPARTMENT OF
	Natural Resources
SPS Region	

Legal Description: NW ¼ NE ¼ Section 1 Township 21 North, Range 7 East

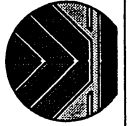
Rock Pit Name: PC Pit

#### PIT DEVELOPMENT PLAN

1. Pile debris as directed by the Contract Administrator.
2. A minimum stripping width of 15 feet must be maintained from all pit faces and at the termination of operations pit shall be left in said condition.
3. Pile all reject rock and overburden away from pit working area as shown.
4. Pit floor shall be sloped to allow drainage. No ponding will be allowed.
5. Maximum face height will be no greater than 20 feet.
6. At the termination of use the pit face shall have a maximum backslope of 1/4:1.
7. Quantity and Quality of ballast pit is not guaranteed by the State.



VIVA BLOWDOWN TIMBER SALE  
PC Pit Plan View



WASHINGTON STATE DEPARTMENT OF  
**Natural Resources**  
SPS Region

Date: 6/1/2004  
Scale : None  
Drawn By: MDB

Legal Description: SW ¼ NE ¼ Section 36 Township 22 North, Range 7 East

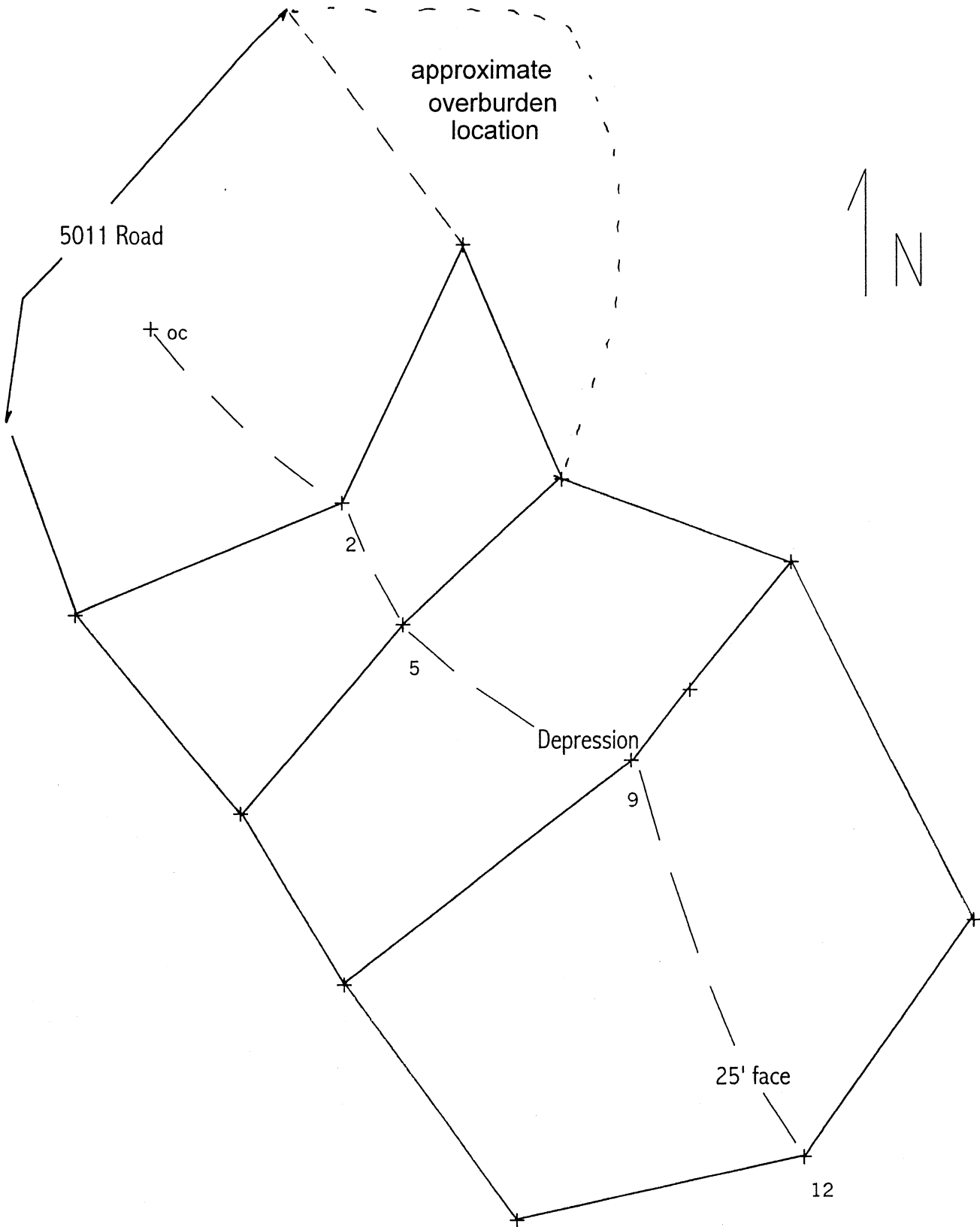
Rock Pit Name: Miner's Pit

#### PIT DEVELOPMENT PLAN

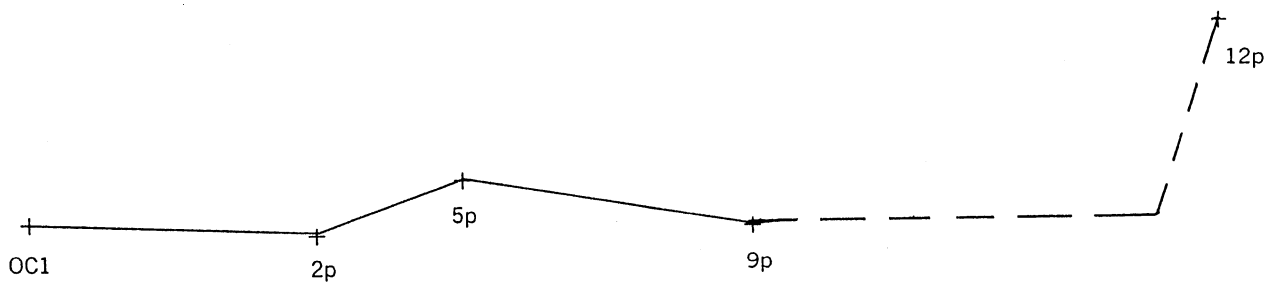
1. Pile debris as directed by the Contract Administrator.
2. A minimum stripping width of 15 feet must be maintained from all pit faces and at the termination of operations pit shall be left in said condition.
3. Pile all reject rock and overburden away from pit working area as directed by the Contract Administrator.
4. Pit floor shall be sloped to allow drainage. No ponding will be allowed.
5. Maximum face height will be no greater than 20 feet.
6. At the termination of use the pit face shall have a maximum backslope of 1:1.
7. Quantity and Quality of ballast pit is not guaranteed by the State.

# MINER'S PIT

**PLAN VIEW** scale: 1"=20'



**PROFILE VIEW** scale: 1"=20'



Drawn by: T. Mohr 11/8/01